

**STATE  
ENDANGERED**

## Least Tern

(*Sterna antillarum*)



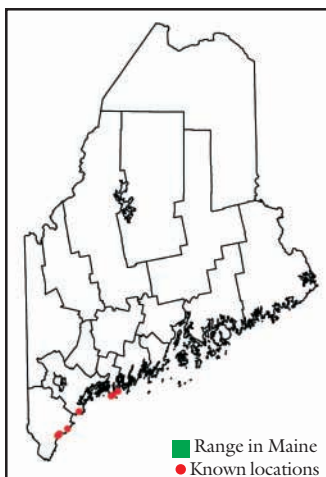
Maine Audubon Society

### Description

Feisty and acrobatic, the least tern is the smallest of Maine's five species of nesting terns. It is about nine inches long and has a 20-inch wingspan. The least tern is white with pale gray feathers on the back and upper surfaces of the wings, except for a narrow black stripe along the leading edge of the upper wing feathers. Its cap is black with a small patch of white on the forehead. In summer, the adult has a yellow bill with a black tip, and yellow to orange feet and legs. The juvenile has a black bill and yellow legs, and the feathers on the back are darker than those of the adult, with a distinctly "scaled" appearance. The least tern's small size, white forehead, and yellow bill distinguish it from Maine's other resident terns.

### Range and Habitat

Least terns breed in three North American populations: along the Atlantic coast from Maine to Texas, the Pacific Coast from California to Mexico, and the major rivers in the Mississippi watershed. The Atlantic Coast population is the largest at about 10,000 pairs. Least terns migrate to the eastern coast of Central and South America and northeast Brazil for the winter.



Least tern nesting habitat includes open sand, gravel, or shell-covered beaches above the high tide line. The birds are particularly attracted to the dynamic sand spits at the ends of beaches. They feed on small fish over shallow open water areas, stream and river outlets, tidal ponds, and salt marshes adjacent to nesting areas.

### Life History and Ecology

Least terns arrive in New England between late April and early May. Most do not return from wintering areas to breed until they are 2-3 years old. Males establish and defend territories where they display to prospective mates, either to reestablish old pair bonds or to find a new mate. During courtship the male feeds fish to a female. Both sexes make scrapes in sandy areas with sparse vegetation above the high tide line, although the female selects the scrape that becomes the nest.

First clutches of two eggs are laid about 2-3 weeks after arrival on the breeding grounds. Incubation begins after laying the first egg and lasts 19-25 days. Both sexes incubate, brood, and feed chicks. Renesting occurs if the eggs or chicks are destroyed early in the breeding period. Both sexes defend their territory, eggs, and chicks. Birds from a colony often band together to drive away potential predators, including humans, by diving and defecating on intruders.

Chicks depart the nest shortly after hatching and may wander as far as 200 yards from the nest. Fledging occurs after 20 days. After the young have fledged, adults and young from several nests associate with each other for feeding, loafing, and roosting. Fledglings follow parents to feeding areas, where they are fed by parents and eventually begin to forage for themselves. Young birds disperse from colony sites about three weeks after fledging. Before migrating, adults with fledglings may remain for 6-8 weeks within the coastal breeding habitat. Adults and juveniles congregate at prime fishing areas beginning in late July and early August. They forage in bays, estuaries, rivers, creek mouths, and tidal marshes, usually within 1½ miles from colonies. They hover up to 30 feet above the water, then plunge into the water and grasp small marine fish with their beaks. The species of forage fish have not been documented in Maine.

Immatures remain on wintering areas for their first year. Wintering areas of the Atlantic coast populations are largely unknown, although some banded birds have been

resighted on the northern coast of South America. Least terns can live to 24 years of age.

## Threats

Habitat loss and degradation, human disturbance, and predation threaten the recovery of this species. Natural phenomena (storm tide flooding, excessive rainfall) can also cause egg and chick loss. Over 2/3 of Maine's 30 miles of beaches have been lost as nesting habitat for least terns because of construction of jetties, seawalls, and high-density housing. Maine's beaches are used by tens of thousands of visitors annually during the least tern nesting season. Beach users can crush nests and chicks. Pets (dogs and cats) destroy nests and harass terns. Beach maintenance activities, especially vehicles associated with beach sweeping and garbage collection, can crush chicks and alter habitat. Garbage left on beaches attracts predators, including foxes, skunks, raccoons, crows, and gulls, all of which readily prey on tern eggs and chicks. Beach restoration and "nourishment" activities can have a net benefit for least terns if completed outside the nesting season, but also may attract birds to high human use areas. Without intensive management, the aforementioned threats would rapidly reduce Maine's least tern population to near-extinction.

## Conservation and Management

There are no records of least terns nesting in Maine during early European settlement. They were likely present, but were quickly extirpated by subsistence hunting. The species was nearly extirpated from the entire East Coast during the 1870s by overharvest for the millinery trade (decorating ladies' hats). Least terns were first recorded nesting in Maine in 1961. Since that time, nesting colonies have been documented at 13 sites. Populations have been monitored since 1977, and the population has fluctuated between 39 (in 1982) and 125 pairs (in 1993).

Pacific and interior populations of least terns are federally endangered. Least terns are listed as a Species of Management Concern on the East Coast by the U.S. Fish & Wildlife Service. They were listed as Maine's first endangered species in 1982. A state recovery plan was written for least terns in Maine in 1993. Least tern nesting, feeding, and brood-rearing habitats were given legal protection in Maine by designating these areas as Essential Habitats in 1995. Least tern numbers have not increased substantially despite two decades of intensive management.

Least tern management begins in May when nesting areas on beaches are fenced and signed. These protected areas offer refuge from human disturbance for nesting terns and recently fledged chicks. Chronic predation and human disturbance are major factors limiting populations, and entire colonies can be lost in a single night from these causes. In many years, only a handful of young are fledged. Electric fencing and large wire mesh fences have been employed to deter predators, with mixed results. Predator control (especially removal of resident pairs of foxes) has not been effective because of social and political limitations that reduce the effectiveness of trappers. Nightly monitoring of colonies has recently proven to be successful in

detering predators. Biologists patrol nesting areas several times weekly to deter dogs, educate the public, and monitor nests and chicks. Population and productivity data are collected each year to monitor population health and recovery status.

Because of Essential Habitat designation, all projects or activities funded and carried out by municipalities and state agencies are reviewed by MDIFW. In some communities, municipalities help with monitoring and management activities. Least terns nest in the same beach environment as piping plovers (endangered) and many other migratory shorebirds.

## Recommendations:

- ✓ Avoid further residential development of beach and dune habitats. Review Essential Habitat maps and guidelines prior to development near plover and tern beaches and adjacent dunes, intertidal areas, and salt marshes. Consult with a biologist from MDIFW and the U.S. Fish and Wildlife Service prior to any project that alters beaches or dunes.
- ✓ Municipalities should strive to maintain important beach and dune systems identified by MDIFW as open space, identify these areas in comprehensive plans, and conserve accordingly.
- ✓ Use voluntary agreements, conservation easements, conservation tax abatements and incentives, and acquisition to protect important habitat for threatened and endangered species.
- ✓ Follow the state and federal laws and regulations pertaining to sand dunes.
- ✓ To preserve water quality and wetland functions, maintain contiguous, forested riparian habitats at least 250 feet from salt marshes adjacent to plover and tern nesting areas. Follow Shoreland Zoning standards.
- ✓ Avoid major projects and activities on plover and tern beaches during the nesting season (April 1 to August 31).
- ✓ Do not approach plovers or terns or their nests. Respect fenced or posted areas to protect endangered species and other wildlife.
- ✓ Keep pets off the beach during the nesting season (April 1 to August 31).
- ✓ Remove trash from the beach. Carry in/carry out is the best trash collection policy.
- ✓ Avoid flying kites or placing beach volleyball areas within 150 yards of plover or tern nesting areas.
- ✓ Avoid fireworks within one mile of nesting areas.
- ✓ Avoid use of vehicles on the beach during the nesting season. If vehicles are used, employ a "spotter" to walk in front of the vehicle to search for eggs and chicks.
- ✓ When feasible, remove jetties and seawalls that adversely affect plover and tern habitat. 